UNITED STATES NAVAL OBSERVATORY

CIRCULAR NO. 8

U. S. Naval Observatory, Washington 25, D. C. February 3, 1950

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS NOVEMBER - DECEMBER, 1948

SUMMARY OF 1948

By Lucy T. Day

All measurements and spot counts were made at the Naval Observatory from plates secured either in Washington, or at Mt. Wilson. Difference in longitude is measured from the central meridian, positive toward the west; latitude is positive toward the north. Areas are corrected for foreshortening and expressed in millionths of the sun's hemisphere. For each date at the bottom of the columns headed: Mt. Wilson group number, difference in longitude, latitude, area of spot or group, and spot count are included respectively: number of groups, assumed longitude of the central meridian, assumed latitude of the center of the disk, total area of spots and groups, and total spot count. The date is expressed in Universal Time. The observatory at which the plate was secured and its quality are indicated directly below this date. (NO stands for U. S. Naval Observatory, MW for Mt. Wilson Observatory; and the symbols VG, G, F and P mean very good, good, fair and poor respectively.) Spots not assigned a number at Mt. Wilson are indicated by an asterisk. Corresponding data were published in the Monthly Weather Review from February 1927 to December 1947. Since December 31, 1947 they are published monthly in this series of circulars.

Date U.T. Nov.	Mount Wilson group No.	Heliographic Difference in longitude °	Heliographic Latitude °	Distance from center of disk °	Area of spot or group	Spot count
1.696	9492	−36	+ 9	37	194	7
NO-G	9488	−29	+11	30	73	6
	9487	+ 8	+20	18	36	1
	9491	+18	+28	31	97	8
	9485	+35	+ 6	35	24	3
	9480	+70	+ 5	70	485	2
	9486	+70	−13	71	97	1
	9486	+76	−14	77	194	1
	(7)	(57)	(+4)		1,200	29
2.675	9494	−88	+24	88	339	1
MW-F	9492	−22	+ 9	23	242	9
	9488	−17	+10	18	170	10
	9491	+31	+28	38	218	3
	9485	+47	+ 6	47	24	1
	9480	+82	+ 5	82	485	2
	9486	+82	−12	82	97	1
	(7)	(44)	(+4)		1,575	27
3.621	9494	−75	+24	75	339	3
MW-P	9489	−24	+ 5	24	16	4
	9492	−11	+10	13	97	2
	9492	− 7	+11	9	145	4
	9497	− 7	−15	20	12	5
	9488	− 3	+10	6	145	7
	9496	+32	+25	37	24	5
	9495	+33	+ 8	34	145	14
	9491	+45	+28	49	218	9
	(8)	(31)	(+4)		1,141	53
4.672	9494	−67	+26	68	97	5
NO-G	9494	−60	+24	61	218	2
	9489	−10	+ 6	11	16	7
	9492	+ 2	+ 9	5	61	1
	9492	+ 9	+10	11	97	10
	9488	+11	+10	12	48	6
	9496	+45	+25	49	12	2
	9495	+46	+ 8	48	145	15
	9491	+58	+28	60	12	1
	9491	+60	+29	61	291	1
	(7)	(17)	(+4)		997	50
5.647	9502	−85	+ 9	85	194	1
NO-F	9501	−61	−10	62	12	1
	9494	−53	+25	56	97	5
	9494	−47	+26	50	194	2
	9492	+15	+ 8	16	24	1
	9492	+21	+ 9	22	24	1
	9488	+25	+10	26	48	3
	9498	+26	+18	29	73	4
	9495	+57	+ 6	57	61	2
	9495	+60	+ 6	60	24	1
	9491	+73	+28	74	291	3
	(8)	(5)	(+4)		1.042	24
6.647	9504	−88	+12	88	48	1
NO-G	9502	−72	+ 9	72	194	2
	(*)	−60	+19	60	6	1
	9501	−53	−12	55	12	6
	9501	−40	−12	51	12	3
	9494	−40	+25	44	12	2
	9494	−36	+25	41	6	1
	9494	−34	+25	39	194	1
	(*)	−38	−15	43	6	2
	9500	−21	−12	26	6	2
	9503	− 8	−12	18	6	4
	9499	+11	+14	15	16	10
	(*)	+25	+17	28	6	1
	9492	+28	+ 8	29	24	2
	9492	+37	+10	38	48	4
	9488	+40	+10	40	48	3
	9498	+40	+18	42	48	5
	9495	+70	+ 6	70	12	2
	9491	+86	+28	86	291	1
	(15)	(351)	(+4)		995	53
7.631	9505	−71	− 9	71	12	1
NO-G	9505	−69	− 9	70	48	2
	9504	−72	+11	72	48	2
	9502	−60	+10	60	291	4
	9501	−42	−11	44	73	5
	9501	−39	−12	42	97	6
	9501	−35	−10	37	48	7
	9494	−23	+24	29	24	4
	9494	−21	+24	28	194	7
	9492	+41	+ 8	41	36	1
	9498	+51	+18	53	6	1
	9488	+53	+ 9	53	48	6
	(8)	(338)	(+4)		925	46
8.631	9506	−80	+22	80	48	2
NO-VG	9504	−58	+12	59	48	5
	9505	−53	− 9	55	97	10
	9502	−45	+10	45	242	6
	9501	−30	−11	33	97	13
	9501	−24	−12	28	291	26
	9501	−20	−10	24	24	7
	9494	− 8	+24	22	194	10
	9488	+67	+10	67	36	13
	(7)	(325)	(+4)		1,077	92
9.622	9506	−67	+22	68	48	2
MW-G	9504	−44	+12	45	61	6
	9505	−42	− 7	44	24	2
	9505	−39	− 9	40	73	2
	9502	−34	+11	35	6	1
	9502	−32	+11	33	242	1
	9501	−17	−11	23	97	14
	9501	−10	−11	17	242	18
	9501	− 5	−10	14	12	1
	9507	−17	+23	25	12	1
	9494	0	+25	22	48	3
	9494	+ 5	+24	22	291	8
	9488	+78	+10	78	97	3
	(8)	(312)	(+3)		1,253	62
10.742	9508	−80	− 8	80	48	4
NO-G	9506	−54	+22	57	12	6
	9505	−30	−10	33	24	10
	9505	−29	− 8	31	6	1
	9505	−24	−10	27	73	3
	9504	−30	+12	31	24	16
	9502	−21	+10	22	6	1

Date U.T. Nov.	Mount Wilson group No.	Heliographic Difference in longitude °	Heliographic Latitude °	Distance from center of disk °	Area of spot or group	Spot count
	9502	−18	+ 8	19	242	4
	9501	− 3	−14	18	97	9
	9501	+ 4	−13	15	121	15
	9501	+ 8	−13	18	145	9
	9507	− 1	+22	19	6	1
	9494	+18	+24	28	194	12
	(8)	(297)	(+3)		998	91
11.874 NO-P	9508	−64	− 8	66	48	2
	9512	−50	−10	52	73	3
	9511	−26	+10	28	24	2
	9505	−16	−10	21	24	3
	9505	−10	−10	17	24	1
	9502	−13	+ 9	15	24	2
	9502	− 4	+ 9	7	291	1
	9509	+ 9	−11	17	24	3
	9501	+12	−13	20	24	4
	9501	+17	−14	23	121	10
	9501	+23	−11	27	12	3
	9501	+25	−11	29	61	1
	9494	+34	+24	38	145	8
	(8)	(282)	(+3)		895	43
12.662 NO-F	9514	−75	− 8	75	388	1
	9508	−54	− 8	56	24	2
	9512	−41	−10	43	121	7
	9513	−31	−27	42	48	6
	9511	−14	+13	17	12	4
	9510	−10	+ 7	11	12	5
	9505	− 7	−10	15	24	1
	9505	+ 3	−10	13	48	4
	9502	0	+ 9	6	12	3
	9502	+ 9	+ 9	11	242	3
	9509	+21	−10	25	6	2
	9501	+26	−13	30	73	2
	9501	+30	−12	33	121	4
	9501	+37	−11	39	145	2
	9494	+45	+26	49	170	8
	(11)	(272)	(+3)		1,446	54
13.717 NO-F	9515	−71	−15	73	97	1
	9514	−61	− 8	64	364	3
	9508	−40	− 6	42	6	2
	9512	−28	− 9	32	36	3
	9510	+ 1	+ 9	6	12	1
	9505	+ 8	−10	15	6	1
	9505	+18	− 9	23	12	1
	9502	+22	+ 9	23	218	2
	9509	+38	−19	43	12	1
	9501	+40	−13	43	24	5
	9501	+51	−11	53	121	1
	9494	+59	+23	60	145	3
	(10)	(258)	(+3)		1,053	24
14.618 NO-G	9518	−81	+13	81	145	1
	9517	−81	+10	81	97	4
	9515	−59	−15	61	97	2
	9516	−57	− 5	58	6	1
	9514	−49	− 9	51	315	1
	9508	−29	− 8	31	12	1
	9512	−15	− 8	18	12	1

Date U.T. Nov.	Mount Wilson group No.	Heliographic Difference in longitude °	Heliographic Latitude °	Distance from center of disk °	Area of spot or group	Spot count
	9510	+13	+13	17	6	1
	9510	+14	+ 8	14	6	1
	9505	+21	−10	25	6	3
	9502	+28	+ 8	29	12	2
	9502	+35	+ 9	35	206	1
	9501	+58	−12	61	24	4
	9501	+65	−12	67	97	1
	9494	+72	+23	72	97	5
	(12)	(246)	(+3)		1,138	29
15.845 NO-G	9518	−67	+13	67	218	7
	9517	−65	+10	65	145	5
	9515	−43	−15	47	145	4
	9514	−34	− 9	37	339	1
	9514	−34	− 7	36	73	5
	9508	−12	− 8	17	16	6
	9512	0	− 8	11	24	4
	9513	+17	−25	32	6	1
	9502	+50	+ 8	50	206	1
	9501	+80	−12	80	73	2
	(9)	(230)	(+3)		1,245	36
16.661 NO-G	9518	−55	+14	56	121	5
	9517	−55	+11	55	48	4
	9517	−52	+10	52	194	8
	9520	−33	−17	38	24	3
	9515	−32	−15	36	145	11
	9519	−24	−19	33	6	3
	9514	−22	− 7	24	145	8
	9514	−21	− 9	24	291	1
	9512	+11	− 9	16	121	18
	9502	+61	+ 9	61	97	2
	(8)	(219)	(+3)		1,192	63
17.637 NO-F	9521	−80	+ 7	80	12	1
	9518	−42	+14	44	145	2
	9517	−41	+12	42	24	4
	9517	−39	+10	40	170	8
	9515	−19	−16	27	109	2
	9515	−18	−18	28	48	7
	9514	−11	− 9	16	194	6
	9514	− 8	−10	15	291	1
	9514	− 8	−13	18	97	7
	9514	− 5	− 9	12	97	2
	9512	+24	− 9	26	242	8
	9502	+73	+ 9	73	48	1
	(7)	(206)	(+3)		1,477	49
18.690 NO-VG	9526	−76	−15	78	24	3
	9526	−75	−13	77	24	1
	9525	−71	−11	73	12	2
	9522	−70	+21	71	12	1
	9522	−63	+21	65	73	6
	9521	−66	+ 6	66	12	1
	9518	−29	+14	32	12	10
	9518	−28	+13	32	121	1
	9517	−29	+11	31	48	10
	9517	−26	+ 8	28	194	23
	(*)	−19	− 5	21	6	1
	(*)	− 8	− 4	11	6	1
	9515	− 5	−16	18	145	12

Date U.T. Nov.	Mount Wilson group No.	Heliographic Difference in longitude °	Heliographic Latitude °	Distance from center of disk °	Area of spot or group	Spot count
	9515	− 4	−18	21	24	4
	9514	+ 3	− 8	11	242	18
	9514	+ 5	−11	14	145	17
	9514	+ 6	−10	13	339	1
	9514	+ 9	− 8	13	73	7
	9524	+14	−15	22	12	3
	9512	+38	− 9	40	436	17
	(*)	+61	−22	65	12	4
	9523	+62	−13	64	24	1
	(14)	(193)	(+2)		1,996	144
19.667 MW-F	9526	−62	−15	64	48	7
	9526	−60	−12	62	73	5
	9525	−58	−10	59	121	4
	9522	−57	+21	58	36	3
	9522	−51	+21	54	73	5
	9521	−52	+ 6	52	12	1
	9518	−15	+13	18	97	2
	9517	−13	+ 9	14	194	14
	9517	−11	+13	15	24	4
	9515	+ 9	−16	20	121	6
	9515	+10	−17	21	24	8
	9514	+17	− 8	21	291	18
	9514	+19	−10	22	339	1
	9514	+19	−12	23	145	21
	9514	+23	− 8	26	61	2
	9512	+51	− 9	53	582	11
	9523	+75	−12	76	145	2
	(10)	(180)	(+2)		2,386	114
20.631 NO-G	9526	−51	−16	54	48	7
	9526	−48	−15	51	97	6
	9525	−43	−12	44	24	1
	9522	−40	+20	43	97	12
	9521	−38	+ 5	38	12	1
	9518	− 4	+12	11	48	12
	9518	− 2	+13	11	48	1
	9518	− 2	+16	15	6	1
	9517	0	+ 9	7	97	13
	9517	+ 4	+ 8	7	36	8
	9528	+ 8	+16	16	24	6
	9515	+22	−16	28	73	3
	9515	+23	−19	31	24	10
	9514	+30	−12	32	339	22
	9514	+33	−10	35	291	1
	9514	+38	−11	40	73	1
	9527	+34	−15	38	12	1
	9527	+36	−15	39	121	14
	9512	+60	−13	62	24	10
	9512	+64	− 9	65	630	3
	(11)	(167)	(+2)		2,124	133
21.668 NO-F	9529	−85	+10	85	12	1
	9526	−38	−16	42	121	8
	9525	−36	−13	38	97	5
	9522	−27	+21	32	97	7
	9518	+11	+12	15	48	2
	9517	+18	+ 7	20	145	9
	9515	+37	−16	41	61	5
	9514	+43	− 8	45	12	1
	9514	+43	−12	46	194	9
	9514	+48	−11	50	291	1
	9514	+51	−10	53	61	1
	9527	+48	−15	51	121	9
	9512	+80	−10	80	582	1
	(10)	(153)	(+2)		1,842	59
22.750 MW-P	9530	−78	+24	78	97	1
	9529	−75	+11	75	291	1
	9529	−66	+11	66	48	3
	9526	−25	−15	30	48	4
	9526	−18	−12	23	61	6
	9522	−13	+21	24	61	4
	9518	+25	+14	27	48	6
	9517	+33	+ 7	34	97	3
	9515	+50	−15	53	61	2
	9514	+62	−10	63	242	1
	9514	+65	− 9	66	48	1
	9514	+65	− 7	66	48	1
	9527	+64	−15	67	170	8
	(9)	(139)	(+2)		1,320	41
23.637 NO-G	9530	−70	+25	72	24	4
	9529	−64	+11	64	267	1
	9529	−60	+10	60	48	6
	9529	−57	+11	58	73	4
	9529	−53	+11	54	97	3
	9526	−13	−17	24	24	6
	9526	− 7	−13	17	61	7
	9522	−10	+21	21	12	3
	9522	− 1	+21	19	24	1
	9521	− 2	+ 6	5	6	2
	9518	+39	+14	41	24	8
	9517	+47	+ 7	47	24	2
	9515	+62	−18	65	73	1
	9527	+72	−15	73	194	5
	9514	+77	−11	78	291	4
	(10)	(127)	(+2)		1,242	57
24.651 MW-F	9531	−72	+17	72	97	1
	9530	−59	+26	61	145	10
	9529	−50	+12	51	242	1
	9529	−47	+12	48	16	1
	9529	−46	+11	47	48	8
	9529	−37	+12	39	73	7
	(*)	+ 6	+11	11	12	2
	9525	+ 7	− 8	13	48	3
	9526	+ 8	−14	17	36	2
	9522	+12	+22	23	24	2
	9517	+62	+ 7	62	24	2
	9515	+78	−16	80	48	3
	(9)	(114)	(+2)		813	42
25.670 NO-G	9535	−78	+12	78	12	1
	9535	−71	+10	71	48	1
	9531	−63	+18	64	12	4
	9531	−59	+17	60	61	1
	9534	−50	+ 8	50	12	4
	9530	−47	+24	50	48	7
	9530	−41	+24	46	12	4
	9529	−36	+12	37	267	3
	9529	−32	+11	33	12	6
	9529	−25	+12	27	61	7

Date U.T. Nov.	Mount Wilson group No.	Heliographic Difference in longitude °	Heliographic Latitude °	Distance from center of disk °	Area of spot or group	Spot count
	9526	+19	−15	25	16	5
	9532	+23	+17	30	24	5
	9522	+24	+23	31	24	1
	9522	+29	+21	34	24	3
	9521	+28	+ 5	28	12	3
	(9)	(101)	(+2)		645	55
26.622	9535	−64	+12	64	12	1
NO-G	9535	−58	+11	58	36	1
	9531	−46	+17	48	61	1
	9534	−45	+12	46	12	3
	9534	−38	+ 9	39	97	8
	9534	−37	+ 8	38	73	1
	9530	−37	+24	42	24	3
	9529	−23	+11	25	6	1
	9529	−22	+12	25	206	1
	9529	−19	+11	21	24	5
	9529	−11	+12	15	12	6
	9522	+37	+22	42	24	4
	9532	+39	+19	42	24	7
	(7)	(88)	(+1)		611	42
27.651	(*)	−51	+11	52	12	4
NO-G	9535	−44	+12	45	12	1
	9535	−43	+10	44	24	1
	9531	−32	+17	35	24	1
	9534	−28	+ 9	30	36	10
	9534	−24	+ 9	26	145	1
	9530	−24	+25	33	12	1
	9529	− 8	+12	14	194	1
	9529	− 7	+12	13	12	4
	9529	− 4	+ 9	9	24	9
	9532	+53	+17	54	48	12
	(7)	(74)	(+1)		543	45
28.670	9535	−28	+10	30	16	1
MW-P	9531	−16	+17	23	12	1
	9534	−14	+10	16	24	1
	9534	− 8	+ 9	12	145	1
	9530	−11	+25	25	12	1
	9530	− 3	+25	24	12	1
	9529	+ 6	+12	13	97	1
	9532	+67	+17	67	24	2
	(6)	(61)	(+1)		342	9
29.688	9535	−17	+12	20	36	5
MW-P	9535	−16	+10	19	24	1
	9534	0	+11	10	24	4
	9534	+ 6	+10	11	145	1
	9530	+ 2	+25	23	24	3
	9529	+19	+12	22	48	1
	9532	+80	+17	80	36	5
	(5)	(48)	(+1)		337	20
30.769	9537	−83	− 3	83	97	3
NO-F	9538	−82	−14	83	242	1
	9535	− 8	+10	13	61	6
	9535	− 3	+11	10	6	1
	9535	− 1	+10	9	24	1
	9535	0	+12	11	61	3
	9534	+13	+ 9	15	61	5

Date U.T. Nov.	Mount Wilson group No.	Heliographic Difference in longitude °	Heliographic Latitude °	Distance from center of disk °	Area of spot or group	Spot count
	9534	+20	+ 8	21	145	1
	9529	+32	+12	34	48	3
	9536	+75	+ 7	75	24	2
	(6)	(33)	(+1)		769	26
	Mean daily area for 30 days = 1,154					
	Mean 10 g+s for 30 days = 140.7					
Dec.						
1.643	9538	−69	−15	70	291	2
NO-G	9537	−69	− 5	69	61	1
	9537	−66	− 4	66	36	1
	9535	+ 3	+10	10	48	9
	9535	+10	+13	15	24	4
	9535	+10	+10	14	12	1
	(*)	+ 8	+26	27	24	5
	9534	+32	+ 8	33	121	1
	(5)	(22)	(+1)		617	24
2.643	9538	−58	−15	60	315	1
NO-F	9537	−56	− 5	56	61	1
	9537	−53	− 4	53	48	1
	9539	−28	− 5	30	12	1
	9539	−26	− 5	27	12	1
	9535	+18	+ 9	20	24	2
	9535	+22	+12	24	36	6
	9535	+25	+ 9	26	12	1
	9535	+26	+12	27	61	1
	(*)	+21	+26	31	16	1
	9534	+46	+ 8	46	145	1
	(6)	(9)	(+1)		742	17
3.667	9542	−80	−16	80	48	1
MW-G	9542	−80	−18	80	48	1
	9541	−80	+ 6	80	97	1
	9538	−45	−15	47	291	1
	9537	−42	− 5	42	36	5
	9537	−39	− 4	39	48	1
	9540	−10	+13	15	12	3
	9535	+34	+12	36	12	5
	9535	+39	+14	41	24	2
	9534	+58	+10	58	24	1
	9534	+60	+ 8	60	145	1
	(7)	(355)	(+1)		785	22
4.707	9543	−82	−12	82	109	1
NO-G	9543	−79	−10	79	388	1
	9542	−67	−18	68	48	1
	9542	−65	−16	67	73	5
	9541	−63	+ 6	63	73	1
	9538	−31	−15	34	194	5
	9537	−28	− 5	29	12	1
	9537	−24	− 4	25	73	5
	9535	+51	+13	53	12	1
	9534	+73	+ 8	73	145	1
	(7)	(341)	(0)		1,127	22
5.724	9543	−68	−12	69	61	1
NO-F	9543	−65	−11	66	436	1
	9542	−55	−18	57	73	2

Date U.T. Dec.	Mount Wilson group No.	Heliographic Difference in longitude °	Heliographic Latitude °	Distance from center of disk °	Area of spot or group	Spot count
	9542	−51	−17	53	24	1
	9541	−49	+ 5	49	61	1
	(*)	−36	+ 3	36	6	1
	9538	−18	−16	23	194	2
	9537	−13	− 5	14	16	2
	9537	− 9	− 4	11	36	1
	9544	+35	−20	40	24	2
	(7)	(328)	(0)		931	14
6.649 NO-G	9546	−81	− 7	81	242	1
	9543	−54	−12	56	73	4
	9543	−52	−11	53	436	1
	9542	−42	−17	45	24	1
	9542	−38	−16	42	12	1
	9541	−36	+ 5	37	73	2
	9545	−21	+15	26	48	3
	9538	− 6	−16	16	24	8
	9538	− 5	−16	17	194	1
	9537	+ 5	− 5	6	36	3
	9544	+48	−20	51	194	11
	(8)	(316)	(0)		1,356	36
7.642 NO-F	9547	−87	− 9	87	97	1
	9546	−68	− 7	68	291	1
	9543	−41	−14	43	73	2
	9543	−41	−12	42	97	4
	9543	−39	−11	41	388	2
	9542	−30	−19	35	24	1
	9542	−27	−15	32	24	3
	9541	−26	+ 7	28	6	1
	9541	−24	+ 6	26	73	1
	9545	−11	+15	18	24	2
	9545	− 6	+16	17	61	1
	9538	+ 7	−16	17	194	1
	9538	+ 8	−16	18	6	1
	9537	+18	− 5	10	48	1
	9544	+58	−21	60	145	2
	9544	+63	−20	65	97	1
	(9)	(303)	(0)		1,648	25
8.649 NO-F	9547	−80	− 9	80	194	1
	9547	−75	− 8	75	388	2
	9546	−55	− 7	55	291	1
	9543	−34	−15	37	12	1
	9543	−30	−12	32	48	2
	9543	−27	−11	30	388	3
	9542	−16	−19	25	48	1
	9542	−12	−15	19	24	2
	9541	−10	+ 6	12	61	1
	9545	+ 5	+15	16	24	1
	9545	+ 8	+16	18	48	1
	9538	+21	−17	27	109	1
	9537	+32	− 5	33	36	1
	9544	+70	−21	71	242	2
	9544	+78	−20	78	97	1
	(9)	(290)	(0)		2,010	21
9.665 NO-G	9547	−73	−12	73	679	9
	9547	−71	− 9	71	194	3
	9547	−67	− 9	67	242	2
	9547	−60	− 7	60	97	4
	9547	−59	− 8	59	679	1
	9546	−42	− 8	43	388	1
	9549	−34	−12	36	6	2
	9550	−21	−17	27	6	2
	9550	−17	−17	23	12	3
	9543	−15	− 9	17	12	3
	9543	−14	−12	18	97	6
	9543	−12	−10	16	194	1
	9542	− 3	−19	19	16	1
	9541	+ 3	+ 5	5	61	1
	9545	+10	+19	21	12	2
	9545	+20	+15	25	24	5
	9538	+35	−17	40	73	1
	9548	+73	+11	73	24	1
	9544	+82	−21	82	242	2
	(11)	(277)	(0)		3,058	50
10.624 NO-F	9547	−60	−12	61	679	10
	9547	−58	− 9	59	97	6
	9547	−52	−10	53	194	7
	9547	−47	− 7	48	242	4
	9547	−47	− 8	47	388	1
	9546	−29	− 8	31	388	1
	9551	−26	+10	28	24	1
	9550	− 7	−16	18	24	6
	9550	− 4	−17	18	12	1
	9543	− 2	−12	12	24	4
	9543	+ 1	−11	11	194	1
	9542	+11	−19	22	24	5
	9541	+17	+ 6	19	61	1
	9538	+48	−16	50	48	1
	9548	+88	+11	88	24	1
	(9)	(263)	(0)		2,423	50
11.653 NO-F	9547	−47	−12	49	48	8
	9547	−47	−10	48	339	2
	9547	−46	− 8	47	48	4
	9547	−44	−10	45	388	8
	9547	−38	− 7	39	242	7
	9547	−33	− 8	35	679	7
	9546	−15	− 7	17	388	1
	9551	−12	+10	16	24	1
	9550	+10	−16	18	24	3
	9543	+15	−11	18	194	5
	9552	+17	−16	22	24	2
	9541	+30	+ 6	31	48	1
	9538	+61	−17	62	24	3
	(8)	(250)	(0)		2,470	52
12.661 MW-G	9553	−70	+16	72	97	1
	9553	−66	+15	68	48	3
	9547	−34	−12	35	388	14
	9547	−30	−10	31	218	16
	9547	−28	−12	30	121	10
	9547	−24	−10	25	194	19
	9547	−19	−10	21	776	4
	9546	− 2	−10	9	24	9
	9546	− 1	− 6	5	48	7
	9546	− 1	− 9	8	388	1
	9550	+23	−16	27	24	10
	9543	+25	−11	26	24	4
	9543	+28	−11	30	194	1

Date U.T. Dec.	Mount Wilson group No.	Heliographic Difference in longitude °	Heliographic Latitude °	Distance from center of disk °	Area of spot or group	Spot count
	9552	+29	−17	32	61	6
	9552	+33	−17	36	73	1
	9541	+46	+ 6	47	48	1
	(7)	(237)	(−1)		2,726	107
13.655	9553	−57	+17	60	97	4
N O-F	9553	−52	+16	55	48	3
	9556	−43	−16	45	48	3
	9555	−24	− 5	24	6	1
	9547	−23	−12	24	48	2
	9547	−22	−10	23	291	8
	9547	−19	− 6	20	48	1
	9547	−19	− 9	21	194	5
	9547	−12	−14	17	12	1
	9547	−11	− 9	14	194	5
	9547	− 7	− 7	10	679	5
	9546	+11	− 9	13	388	1
	9550	+33	−16	35	24	1
	9543	+41	−11	42	145	1
	9552	+45	−16	46	170	5
	9554	+59	−15	59	12	2
	9541	+59	+ 5	59	24	1
	(10)	(224)	(−1)		2,428	49
14.651	9560	−85	+22	85	97	1
N O-G	9559	−77	+17	78	16	1
	9558	−68	−15	68	12	2
	9553	−44	+17	47	194	5
	9553	−39	+16	42	48	12
	9556	−30	−16	33	97	21
	9555	− 9	− 5	11	48	10
	9547	− 8	−12	14	170	18
	9547	− 6	−10	11	121	9
	9547	− 5	− 6	6	36	4
	9547	− 4	−12	10	24	4
	9547	+ 4	− 8	8	436	21
	9547	+ 7	− 8	11	582	2
	9546	+22	−11	23	6	1
	9546	+25	− 8	26	436	1
	9550	+45	−16	47	24	1
	9543	+55	−11	55	194	2
	9543	+57	−15	58	73	2
	9552	+55	−18	57	97	5
	9552	+65	−17	66	145	5
	9554	+71	−15	71	12	1
	(12)	(210)	(−1)		2,868	128
15.655	9565	−75	+ 8	76	24	1
M W-G	9560	−72	+22	75	145	4
	9563	−69	+14	71	97	7
	9561	−68	−14	68	73	2
	9559	−67	+15	69	12	1
	9558	−55	−17	56	24	8
	9562	−42	+ 7	43	36	6
	9553	−31	+16	35	145	7
	9553	−27	+15	32	48	3
	9556	−16	−17	22	121	14
	9555	+ 5	− 5	6	61	8
	9547	+ 5	−12	12	194	11
	9547	+ 9	−10	12	145	16
	9547	+10	−12	14	194	9
	9547	+19	− 9	20	97	12
	9547	+20	−11	22	582	2
	9546	+39	− 8	40	436	1
	9552	+68	−18	68	48	1
	9552	+76	−17	72	145	4
	9543	+69	−11	69	194	1
	9554	+85	−15	85	12	1
	(15)	(197)	(−1)		2,833	119
17.625	9561	−59	−13	59	12	1
N O-G	9561	−52	−12	52	24	1
	9560	−45	+22	50	388	9
	9560	−40	+21	46	97	7
	9559	−45	+18	49	97	8
	9563	−45	+14	48	218	10
	9563	−40	+14	43	97	5
	(*)	−26	+25	36	12	3
	9562	−16	+ 6	18	121	11
	9562	−12	+ 5	13	97	6
	9553	− 5	+16	18	73	4
	9553	+ 4	+14	15	48	2
	(*)	+ 3	+ 6	7	6	2
	(*)	+ 6	+20	22	24	2
	9556	+ 8	−17	17	145	11
	9556	+15	−17	22	194	5
	9555	+32	− 5	32	97	4
	9547	+32	−13	33	121	2
	9547	+34	− 8	35	242	13
	9547	+40	− 8	40	339	7
	9547	+47	−10	47	630	1
	9546	+64	− 8	64	388	1
	(13)	(171)	(−1)		3,470	115
18.649	9568	−76	−12	76	73	1
N O-F	9568	−70	−12	70	145	2
	9561	−41	−11	42	73	3
	9560	−32	+22	38	339	10
	9560	−26	+20	33	194	4
	9559	−31	+18	36	73	6
	9563	−31	+14	35	145	3
	9563	−27	+14	32	97	4
	9558	−16	−16	21	24	1
	9562	− 4	+ 4	5	97	10
	9562	− 3	+ 7	9	48	7
	9562	+ 3	+ 6	8	145	3
	(*)	+ 5	+33	34	121	5
	(*)	+ 8	+16	20	48	1
	9553	+16	+12	21	73	2
	9553	+17	+15	23	12	1
	9556	+23	−16	28	121	3
	9556	+30	−16	32	291	4
	9555	+45	− 6	45	48	2
	9547	+46	−12	47	121	1
	9547	+48	− 8	48	194	7
	9547	+55	− 9	55	242	3
	9547	+60	−10	60	533	2
	9546	+78	− 9	78	388	2
	(14)	(158)	(−1)		3,645	87
19.706	9569	−84	+27	84	194	2
M W-VG	9568	−63	−13	63	291	8

Date U.T. Dec.	Mount Wilson group No.	Heliographic Difference in longitude °	Heliographic Latitude °	Distance from center of disk °	Area of spot or group	Spot count
	9568	−57	−13	57	267	7
	9567	−36	+10	38	73	10
	9560	−19	+22	30	436	16
	9560	−13	+21	26	97	7
	9563	−18	+14	24	194	10
	9563	−13	+14	21	218	10
	9559	−17	+18	26	48	7
	9559	−13	+18	24	145	1
	9566	− 2	+13	15	12	4
	9558	− 1	−15	13	24	6
	9562	+13	+ 5	16	97	20
	9562	+16	+ 7	18	48	5
	9562	+19	+ 5	21	194	1
	(*)	+19	+33	39	109	13
	9553	+29	+12	32	97	8
	9553	+31	+14	35	121	15
	9556	+38	−18	41	73	14
	9556	+43	−18	45	339	2
	9555	+56	− 5	56	12	1
	9555	+63	− 5	63	6	1
	9547	+59	−12	59	145	4
	9547	+61	−10	61	97	20
	9547	+69	− 9	69	97	6
	9547	+74	−10	74	630	1
	(14)	(144)	(−2)		4,064	199
20.767 MW-F	9569	−70	+27	74	194	2
	9568	−50	−13	51	388	6
	9568	−42	−13	43	242	10
	9567	−22	+ 9	24	48	5
	9560	− 5	+22	24	388	10
	9560	+ 1	+21	23	48	3
	9563	− 4	+13	15	97	10
	9563	+ 2	+12	14	291	17
	9559	+ 1	+17	19	194	8
	9566	+10	+13	18	24	1
	9566	+13	+12	19	24	1
	9558	+15	−14	19	145	15
	9562	+27	+ 4	28	48	7
	9562	+31	+ 4	32	145	1
	(*)	+29	+33	43	97	8
	9553	+39	+12	41	48	2
	9553	+47	+12	49	97	1
	9556	+52	−17	53	36	4
	9556	+59	−18	60	291	1
	9547	+75	−11	75	97	4
	9547	+83	− 9	83	194	3
	(13)	(130)	(−2)		3,136	120
21.678 NO-F	9569	−60	+27	65	24	1
	9569	−58	+28	63	194	1
	9568	−37	−14	39	582	5
	9568	−30	−13	32	194	10
	9568	−25	−12	26	206	1
	9570	− 7	+17	21	48	4
	9560	+ 1	+24	26	12	1
	9560	+ 8	+21	24	242	4
	9560	+ 9	+18	22	24	6
	9559	+13	+16	22	194	7
	9563	+15	+11	20	485	10
	9566	+23	+13	28	12	1
	9566	+28	+12	32	12	1
	9558	+30	−15	32	339	8
	(*)	+40	+33	52	24	2
	9562	+41	+ 4	41	48	4
	9562	+45	+ 4	45	145	1
	9553	+51	+12	53	61	1
	9553	+60	+12	62	61	1
	9556	+71	−18	72	315	1
	(12)	(118)	(−2)		3,222	70
22.647 NO-G	9569	−44	+28	52	170	1
	9568	−24	−14	26	679	3
	9568	−20	−12	23	48	1
	9568	−17	−13	20	436	10
	9568	−11	−12	15	218	1
	9570	+ 7	+17	21	24	5
	(*)	+15	+21	27	24	1
	(*)	+15	+19	26	24	3
	9560	+21	+21	30	242	6
	9559	+24	+14	29	97	8
	9559	+27	+16	33	145	5
	9563	+27	+11	30	436	9
	9558	+42	−16	44	339	8
	9562	+59	+ 3	59	97	1
	9553	+63	+11	64	36	1
	9553	+72	+12	73	24	1
	9556	+85	−18	85	291	1
	(12)	(105)	(−2)		3,330	65
23.782 NO-G	9572	−78	−17	78	242	1
	9571	−40	− 9	41	24	2
	9569	−30	+28	42	170	1
	9568	− 9	−14	15	776	4
	9568	− 5	−11	10	24	1
	9568	− 4	−14	12	388	5
	9568	+ 3	−12	10	582	4
	9560	+29	+22	36	73	2
	9560	+33	+21	39	267	9
	9563	+38	+14	41	194	12
	9563	+47	+11	49	291	7
	9559	+39	+14	42	48	4
	9559	+43	+16	46	97	1
	9558	+56	−16	58	436	9
	9562	+73	+ 3	73	97	1
	(9)	(90)	(−2)		3,709	63
24.688 MW-VG	9576	−82	+13	82	145	1
	9575	−81	− 4	81	242	1
	9572	−66	−17	67	339	1
	9571	−27	−10	28	24	5
	9571	−23	−11	25	12	1
	9569	−19	+28	35	194	1
	9568	+ 3	−16	16	1,261	34
	9568	+10	−15	16	485	18
	9568	+15	−13	18	824	12
	9573	+ 7	+13	16	16	6
	9560	+43	+22	48	61	14
	9560	+43	+19	47	24	4
	9560	+49	+20	52	242	20
	9563	+52	+14	54	145	17
	9563	+59	+11	60	339	29
	9559	+58	+16	60	145	2

Date U.T. Dec.	Mount Wilson group No.	Heliographic Difference in longitude °	Heliographic Latitude °	Distance from center of disk °	Area of spot or group	Spot count
	9558	+69	−17	70	582	17
	(11)	(78)	(−2)		5,080	183
25.770	9576	−70	+13	71	48	2
N O-F	9576	−67	+12	68	145	1
	9575	−70	− 4	70	73	4
	9575	−63	− 5	63	145	1
	9572	−49	−17	51	291	1
	9574	−36	+28	46	24	2
	9569	− 7	+27	31	12	3
	9569	− 5	+28	31	170	1
	9568	+17	−16	22	897	13
	9568	+25	−15	28	533	9
	9568	+31	−13	32	582	4
	9573	+21	+13	25	48	5
	9560	+52	+23	57	73	2
	9560	+60	+22	63	48	3
	9560	+65	+21	67	145	4
	9563	+68	+12	69	145	5
	9563	+76	+10	77	97	1
	9559	+70	+15	71	97	1
	(10)	(64)	(−2)		3,573	62
26.697	9577	−88	+10	88	73	1
N O-F	9576	−60	+13	62	12	1
	9576	−53	+13	55	206	1
	9575	−60	− 6	60	48	3
	9575	−55	− 5	55	48	1
	9575	−50	− 5	50	145	1
	9572	−37	−17	40	388	1
	9574	−24	+28	38	36	3
	9571	− 3	−11	9	36	4
	9569	+ 8	+29	31	145	1
	9568	+28	−17	32	727	6
	9568	+35	−15	36	582	7
	9568	+43	−12	44	679	1
	9573	+33	+13	36	24	1
	9560	+63	+23	66	170	1
	9560	+70	+22	73	61	2
	9560	+80	+20	80	97	1
	(10)	(52)	(−2)		3,477	36
27.664	9580	−86	+13	86	339	2
N O-G	9575	−48	− 7	49	61	1
	9575	−40	− 6	40	12	1
	9575	−39	− 6	39	242	1
	9576	−43	+13	45	48	7
	9576	−39	+12	41	194	1
	9572	−24	−18	29	267	1
	9574	−12	+28	32	24	3
	9569	+21	+29	37	170	1
	9568	+40	−18	42	582	4
	9568	+48	−16	50	242	6
	9568	+53	−13	55	873	5
	9573	+47	+13	49	48	1
	9560	+77	+23	79	170	1
	(9)	(39)	(−2)		3,272	35
28.660	9580	−72	+13	72	436	7
N O-G	9579	−60	−12	61	12	1
	9577	−58	+10	60	24	1
	9576	−33	+12	36	48	7
	9576	−30	+15	35	24	4
	9576	−27	+10	31	6	1
	9576	−26	+11	30	194	1
	9575	−33	− 7	33	48	15
	9575	−27	− 6	27	6	1
	9575	−26	− 6	26	242	1
	9578	−19	− 3	19	16	7
	9572	−13	−18	20	6	1
	9572	−12	−18	20	242	1
	9574	− 1	+27	30	12	2
	9569	+34	+28	45	170	1
	9568	+53	−18	55	533	8
	9568	+58	−14	60	12	1
	9568	+60	−18	62	170	2
	9568	+68	−13	69	873	4
	9573	+60	+14	63	48	4
	(11)	(26)	(−3)		3,122	70
29.838	9580	−58	+13	60	388	5
M W-P.	9577	−44	+10	46	12	1
	9575	−19	− 7	20	36	7
	9575	−12	− 5	12	242	1
	9576	−15	+13	22	291	5
	9576	−12	+11	18	170	3
	9578	− 5	− 3	4	48	7
	9583	+ 1	+18	21	12	3
	9572	+ 2	−18	15	242	1
	9574	+12	+27	32	12	2
	9569	+48	+28	55	145	1
	9582	+56	+17	59	24	2
	9568	+68	−18	69	242	2
	9568	+80	+14	80	388	2
	(11)	(10)	(−3)		2,252	42
31.642	9580	−33	+12	36	121	2
N O-F	9580	−25	+11	29	12	1
	9577	−19	+10	23	12	2
	9576	+10	+11	17	170	2
	9576	+12	+13	19	12	1
	9576	+13	+11	19	194	1
	9575	+13	− 6	13	242	3
	9578	+25	− 4	25	12	1
	9572	+29	−18	32	194	1
	9584	+58	+13	60	97	2
	9569	+70	+29	74	145	1
	(8)	(347)	(−3)		1,211	17

Mean daily area for 29 days = 2,572
Mean 10 g+s for 29 days = 164.5

DAILY SUMMARY - 1948

A = Area
g = Number of groups
s = Number of spots
r = 10 g+s

Date	A	g	s	r
Jan.				
1.796	2157	13	173	303
2.727	2398	13	143	273
3.656	2986	15	108	258
4.737	2035	13	74	204
5.722	1587	9	27	117
6.658	1346	11	62	172
7.698	1088	10	56	156
8.650	1137	10	47	147
9.729	1155	12	56	176
10.659	968	10	69	169
11.670	767	9	87	177
12.743	907	7	77	147
13.717	719	7	22	92
14.681	1113	9	26	116
15.698	1242	10	26	126
16.637	1260	9	31	121
17.671	766	8	78	158
18.666	973	12	66	186
19.685	847	8	20	100
20.661	1369	7	17	87
21.649	1944	10	38	138
22.646	2012	8	42	122
23.688	1804	9	71	161
24.681	1325	9	64	154
25.674	1283	8	103	183
26.644	1308	10	58	158
27.760	1113	8	14	94
28.638	1041	10	33	133
29.635	969	9	59	149
30.760	1223	7	19	89
31.667	1199	6	14	74
Feb.				
1.656	907	8	52	132
2.760	896	5	22	72
3.644	1066	6	30	90
4.665	1162	8	55	135
5.688	1223	8	38	118
6.683	1258	8	63	143
8.722	859	9	89	179
9.734	1059	8	85	165
10.653	1501	10	43	143
11.785	1054	7	23	93
12.735	738	6	14	74
13.673	508	3	18	48
14.706	835	4	9	49
15.850	858	7	25	95
16.716	764	5	18	68
17.670	1069	8	44	124
18.628	1381	7	34	104
19.682	1458	9	59	149
20.667	2424	10	49	149
21.633	2291	9	30	120
22.691	1464	10	44	144
23.674	1028	8	27	107
24.636	532	7	20	90
25.682	956	7	30	100
26.765	1040	9	21	111
27.651	1319	6	16	76
28.644	1732	8	50	130
29.740	1500	8	30	110

Date	A	g	s	r
Mar.				
1.672	1513	8	48	128
2.756	1622	9	51	141
3.662	1502	8	25	105
4.710	1319	7	29	99
5.671	1126	8	27	107
6.666	1295	8	58	138
7.840	1013	7	20	90
8.696	1538	7	19	89
9.722	1502	6	19	79
10.767	1812	7	42	112
11.735	2066	8	47	127
12.620	1828	7	37	107
13.625	1769	8	79	159
14.694	1538	5	50	100
15.672	1465	10	70	170
16.637	1280	7	59	129
17.632	1186	6	39	99
18.631	1418	5	50	100
19.724	1696	4	30	70
20.644	1308	4	20	60
21.692	537	5	14	64
22.612	36	2	11	31
23.653	97	3	8	38
24.732	776	3	13	43
25.645	764	4	19	59
26.687	969	5	25	75
27.743	1112	8	62	142
29.680	1755	9	46	136
30.648	2167	12	72	192
31.698	2422	9	84	174
Apr.				
1.690	3372	10	189	289
2.757	3404	10	97	197
3.638	4603	11	109	219
4.698	3466	13	78	208
5.667	3258	12	98	218
6.673	2979	11	75	185
7.683	3077	12	62	182
8.751	2893	13	44	174
9.659	2971	16	95	255
10.637	1720	11	48	158
11.729	2961	14	68	208
12.674	3075	17	83	253
13.601	3530	17	255	425
14.694	3331	16	88	248
15.636	3264	15	111	261
16.642	3245	16	120	280
17.859	3827	13	169	299
18.583	4022	11	193	303
19.677	4817	15	109	259
20.641	4562	13	88	218
21.663	4118	10	149	249
22.665	4239	10	157	257
23.635	3974	12	78	198
24.697	3953	14	79	219
25.605	4227	14	139	279
26.643	3963	14	88	228
27.712	3525	14	63	203
29.646	2435	11	25	135
30.633	2296	9	58	148

DAILY SUMMARY - 1948

Date	A	g	s	r
May				
1.595	2368	10	46	146
2.579	1476	9	43	133
3.590	2284	13	66	196
4.628	2696	13	39	169
5.632	3451	15	66	216
6.642	5368	14	91	231
7.733	4846	15	99	249
8.629	5681	16	96	256
9.673	6700	15	153	303
10.652	6560	14	130	270
11.649	6646	16	148	308
12.644	5768	14	129	269
13.574	5478	16	205	365
14.633	4397	14	82	222
15.662	3852	14	70	210
16.628	2767	13	130	260
17.740	2460	9	56	146
18.631	2375	9	45	135
19.636	1417	7	28	98
20.651	1440	8	32	112
21.643	1547	10	41	141
22.640	1217	12	54	174
23.633	1029	10	50	150
24.639	1319	9	27	117
25.650	1496	10	36	136
26.567	1739	9	61	151
27.675	2676	8	48	128
28.651	3029	7	45	115
29.729	2712	10	44	144
31.654	2664	10	73	173
June				
1.647	2289	7	43	113
2.685	2132	8	37	117
3.567	2165	11	76	186
4.644	2424	15	55	205
5.751	2409	16	89	249
6.635	2518	16	70	230
7.660	2493	16	47	207
8.639	2222	15	51	201
9.642	1943	10	112	212
10.647	1792	10	92	192
11.642	1380	9	104	194
12.638	1264	9	79	169
13.570	1141	9	171	261
14.644	1133	11	70	180
15.638	1900	10	79	179
16.878	1915	11	77	187
17.638	2336	11	83	193
18.697	3017	11	67	177
19.646	4680	11	93	203
20.851	3866	8	58	138
21.642	3587	9	71	161
22.638	3271	11	79	189
23.655	4040	14	78	218
24.640	3640	15	102	252
25.667	3390	13	129	259
26.701	2914	12	59	179
27.640	2687	12	86	206
28.648	2717	12	95	215
29.653	2674	16	89	249
30.642	2458	9	42	132
July				
1.780	1962	7	43	113
2.645	1799	10	57	157
3.649	2448	9	64	154
4.558	2484	11	69	179
5.563	2252	10	46	146
6.567	1055	11	24	134
7.558	760	11	44	154
8.560	842	11	57	167
9.570	1113	10	92	192
10.654	1919	11	80	190
11.651	1653	13	98	228
12.647	1428	11	87	197
13.640	1434	15	92	242
14.838	1809	12	83	203
15.662	1804	10	91	191
16.647	1457	8	71	151
17.667	1500	9	58	148
18.676	1585	10	44	144
19.751	1391	7	31	101
20.776	1758	7	58	128
21.646	2662	9	55	145
22.644	2701	9	110	200
23.711	2112	10	72	172
24.649	2543	13	68	198
25.642	2392	13	53	183
26.648	2104	14	60	200
27.640	2009	10	57	157
28.683	2385	10	72	172
29.640	2590	13	84	214
30.640	3112	13	68	198
31.658	2928	13	62	192
Aug.				
1.607	2999	14	166	306
2.658	2908	13	105	235
3.642	3693	14	107	247
4.683	3766	12	90	210
5.640	3778	12	119	239
6.641	3535	12	100	220
7.647	3101	10	82	182
8.635	2260	7	61	131
9.640	1842	8	57	137
10.639	1320	9	50	140
11.638	1246	9	57	147
12.692	1556	10	50	150
13.636	1799	11	60	170
14.700	2112	12	54	174
15.681	2026	13	79	209
16.644	2093	15	72	222
17.639	2003	16	69	229
18.637	2391	16	139	299
19.688	2868	12	97	217
20.642	2295	14	77	217
21.639	2258	13	81	211
22.810	1542	13	76	206
23.652	1253	10	47	147
24.644	1405	10	44	144
25.633	1326	13	76	206
26.650	1424	10	36	136
27.639	1556	13	49	179
28.684	1766	13	71	201
29.597	1938	9	76	166
30.601	1792	9	80	170
31.789	1996	12	93	213
Sept.				
1.658	2022	9	64	154
2.644	1682	9	63	153
3.641	1446	7	58	128

DAILY SUMMARY - 1948

Date	A	g	s	r
4.710	1508	7	53	123
5.783	1138	5	52	102
6.646	1114	4	53	93
7.651	1054	4	27	67
8.633	955	7	28	98
9.633	809	7	23	93
10.600	477	8	50	130
11.675	1243	9	24	114
12.760	2200	10	45	145
13.660	2344	11	44	154
14.639	2314	10	78	178
15.640	2374	12	46	166
16.642	2681	13	90	220
17.628	2363	15	92	242
18.631	2762	14	121	261
19.585	2966	13	96	226
20.653	3002	15	152	302
21.590	2977	17	218	388
22.698	3087	16	88	248
23.634	2581	17	93	263
25.711	1744	10	49	149
26.651	1587	11	52	162
27.638	1647	13	44	174
28.592	1125	12	82	202
29.633	830	9	38	128
30.840	907	7	37	107
Oct.				
1.660	917	10	39	139
2.642	1101	12	75	195
3.621	1275	10	82	182
4.650	1501	10	37	137
5.608	1392	6	55	115
6.667	1394	6	18	78
7.612	1139	5	17	67
8.699	872	6	9	69
9.725	1248	6	22	82
10.703	1926	9	42	132
11.608	2318	10	110	210
12.624	2447	9	89	179
13.622	3106	17	97	267
14.646	3029	16	131	291
15.634	2743	14	86	226
16.621	2295	15	61	211
18.634	1758	9	57	147
19.631	1839	13	46	176
20.644	1621	15	61	211
21.634	2182	17	70	240
22.608	2353	18	105	285
23.619	1949	14	105	245
24.615	1724	12	118	238
25.649	1454	5	40	90
26.638	1744	6	63	123
27.631	1792	7	82	152
28.641	1615	6	28	88
29.670	1411	9	38	128
30.659	968	6	35	95
31.635	889	5	14	64
Nov.				
1.696	1200	7	29	99
2.675	1575	7	27	97
3.621	1141	8	53	133
4.672	997	7	50	120
5.647	1042	8	24	104
6.647	995	15	53	203
7.631	925	8	46	126
8.631	1077	7	92	162
9.622	1253	8	62	142
10.742	998	8	91	171
11.874	895	8	43	123
12.662	1446	11	54	164
13.717	1053	10	24	124
14.618	1138	12	29	149
15.845	1245	9	36	126
16.661	1192	8	63	143
17.637	1477	7	49	119
18.690	1996	14	144	284
19.667	2386	10	114	214
20.631	2124	11	133	243
21.668	1842	10	59	159
22.750	1320	9	41	131
23.637	1242	10	57	157
24.651	813	9	42	132
25.670	645	9	55	145
26.622	611	7	42	112
27.651	543	7	45	115
28.670	342	6	9	69
29.688	337	5	20	70
30.769	769	6	26	86
Dec.				
1.643	617	5	24	74
2.643	742	6	17	77
3.667	785	7	22	92
4.707	1127	7	22	92
5.724	931	7	14	84
6.649	1356	8	36	116
7.642	1648	9	25	115
8.649	2010	9	21	111
9.665	3058	11	50	160
10.624	2423	9	50	140
11.653	2470	8	52	132
12.661	2726	7	107	177
13.655	2428	10	49	149
14.651	2868	12	128	248
15.655	2833	15	119	269
17.625	3470	13	115	245
18.649	3645	14	87	227
19.706	4064	14	199	339
20.767	3136	13	120	250
21.678	3222	12	70	190
22.647	3330	12	65	185
23.782	3709	9	63	153
24.688	5080	11	183	293
25.770	3573	10	62	162
26.697	3477	10	36	136
27.664	3272	9	35	125
28.660	3122	11	70	180
29.838	2252	11	42	152
31.642	1211	8	17	97

MONTHLY SUMMARY - 1948

	A	r		A	r
January	1356	152.9	July	1935	172.6
February	1174	111.4	August	2189	195.5
March	1348	105.4	September	1825	171.4
April	3486	232.9	October	1733	162.4
May	3249	190.7	November	1154	140.7
June	2547	195.1	December	2572	164.5

NAVY-DPPO PRNC. WASH., D.C.